

Advance Longmont Report 2: Target Industry Analysis



Prepared for the City of Longmont, Colorado
By Avalanche Consulting, Inc.

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Table of Contents

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| Table of Contents | 1 |
| Acknowledgements..... | 2 |
| About the Project | 4 |
| Introduction | 5 |
| Target Industry Identification | 7 |
| What Are Target Industries? | 7 |
| Why Focus on Target Industries? | 7 |
| How Are Target Industries Identified? | 8 |
| Longmont Target Industry Recommendations..... | 10 |
| Longmont Target Industry Summaries..... | 11 |
| Target Timing and Approach..... | 13 |
| Target Industry Profiles..... | 15 |
| Advanced Technology | 16 |
| Bioscience..... | 23 |
| Creative Arts & Culinary | 27 |
| Professional Services & IT..... | 32 |

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Advance Longmont's Steering Committee members include:

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David Starnes, Redevelopment Manager, City of Longmont
Kathy Weber-Harding, President, Longmont Chamber of Commerce
Jeff Moore, Councilmember, City of Longmont

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| | |
|-----------------------------|---|
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| Blackfox Training Institute | Longmont Entrepreneurial Network |
| Boulder County | Longmont Housing Authority |
| CBRE | Longmont Power & Communications |

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City of Longmont Councilmembers
City of Longmont
Communications Concepts
CP&M
Digital Globe
GE
Gibraltar Business Appraisals
Guarantee Bank
FirstBank of Longmont
Front Range Community College
Frontier Companies
Holland & Hart
Instant Imprints
Intel Corporation
Intrado
KW 1st Realty
Latino Task Force of Boulder County
Left Hand Brewing
Life Bridge Church
Longmont Area Economic Council
Longmont Association of Realtors
Longmont Chamber of Commerce

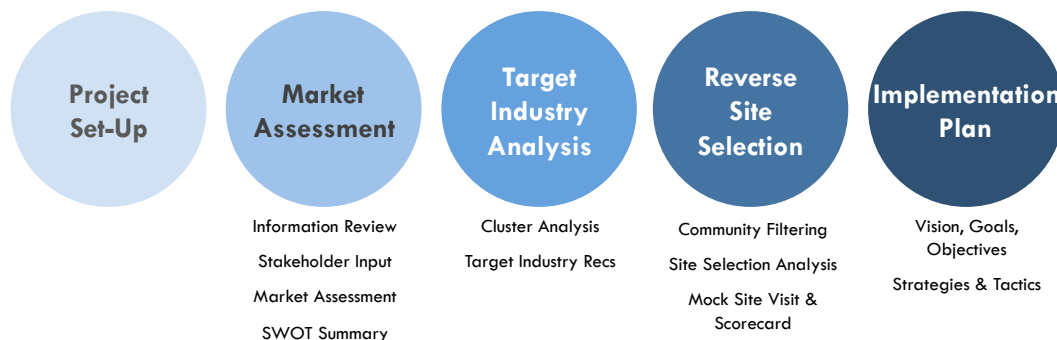
Longmont Senior Center
Longmont Times-Call
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Prudential RM Realtors
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Seagate Technology
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Sun Construction
Tinker Mill
Vapor Technologies
Visit Longmont
Xcel Energy
Xilinx

About the Project

Advance Longmont is a target industry analysis and economic development strategy that includes four phases of development:

Phase 1: Market Assessment

After initial project set-up, the Market Assessment examined Longmont's current competitive position, assets, and opportunities. This phase included a review of recent studies and data on the local economy, stakeholder input sessions engaging Longmont's leaders, businesses, and an in-depth analysis of relevant economic and demographic data. The findings of the evaluation are contained in a SWOT assessment that highlights challenges and opportunities presented in the community and an organizational assessment of the area's economic development efforts.



Phase 2: Target Industry Analysis

Building on the research conducted in the Market Assessment, this Target Industry Analysis evaluates the performance of Longmont's current industry and occupational base as related to national industry trends and site selection needs. This process will help determine appropriate target industry audiences for the area's economic development efforts.

Phase 3: Reverse Site Selection

In Phase 3, the consulting team will conduct an objective Reverse Site Selection assessment of Longmont. This process tests the target industries recommended in Phase 2, evaluating Longmont's competitiveness, and making recommendations on target adjustments and local product improvements.

Phase 4: Implementation Plan

The Implementation Plan for Longmont will articulate Longmont's vision for the future and a clear, step-by-step roadmap for achieving this vision. The Plan will address and align a variety of issues, including recruitment, retention, workforce, physical infrastructure, quality of life, marketing, and more. It will conclude with a timeline, estimated budget, resource requirements, task assignments for lead agencies and partners, and performance measurements.

Introduction

Longmont is uniquely positioned at the intersection of high technology and traditional manufacturing. With deep roots in agriculture, manufacturing and high tech, Longmont has grown as a residential destination with a welcoming nature, vibrant outdoor lifestyle, and a do-it-yourself attitude. The city's publically owned utility offers some of the most affordable and reliable service in the state, and residents recently voted to continue expansion of the public, fiber optic broadband network, a priceless asset for businesses and residents alike. Geographically located between two major research universities, Longmont draws from a broad pool of talent, including manufacturing workers and software engineers. **Longmont offers a joining of affordability, infrastructure, workforce, education, and quality of life that is rare and increasingly sought in the modern economy.**

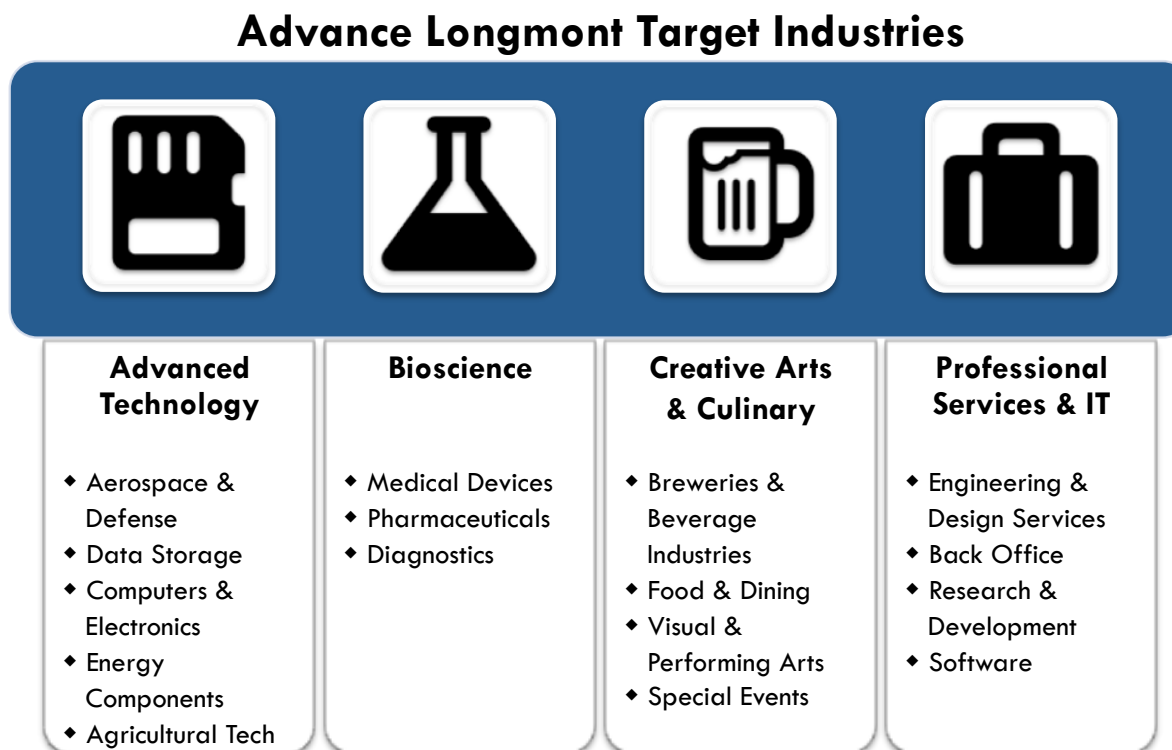
Longmont is also a community in flux. Last year, just as employment started recovering from the recent recession, one of Longmont's largest primary employers, DigitalGlobe, announced its relocation outside of the city. Weeks later, devastating floods rocked the community, destroying homes and infrastructure. These events were an unpleasant way to wrap up the year but also present a unique opportunity for the city to revisit its goals and objectives and catalyze efforts to more effectively direct growth and redevelopment.

Towards this end, the City hired Avalanche Consulting and Site Selection Group to assist with development of a new, targeted economic development strategic plan. **This strategy will assist Longmont in recruiting and retaining quality businesses, improving the local business climate, increasing entrepreneurial opportunities, and optimizing the organizational effectiveness of local economic development efforts.**

Titled *Advance Longmont*, the strategy development will include four parts. The first report, the **Market Assessment**, presented a summary of findings in SWOT format. Organized by related topics, this summary identifies strengths, challenges, opportunities, and threats seen in Longmont's economy. The Market Assessment includes a detailed Data Assessment, which examines Longmont's competitive position relative to the Front Range, State of Colorado, and US through a number of datasets.

This report, the **Target Industry Analysis**, builds on the foundation set by the Market Assessment and identifies target industry clusters and niche sectors for Longmont's economic development efforts. Targeting specific industries allows a community to efficiently focus economic development resources on those clusters that best match local competitive advantages and aspirations. Target industries were also identified based on their potential to create a range of job opportunities for all residents of Longmont and to grow in the near future.

This report explains the process of target identification, describes Longmont’s approach to each target industry, and includes target industry profiles highlighting trends and local competitive strengths. The Advance Longmont Target Industries are listed below.



The next phase of the project will include a **Reverse Site Selection** assessment of Longmont. This will be conducted by an actual site selection team examining Longmont’s real world competitiveness for development of the selected target industries.

The final report, the **Implementation Plan**, will establish a clear, step-by-step roadmap for achieving Advance Longmont’s economic development vision and growing target industries. This will include recommendations related to workforce, infrastructure, entrepreneurship, business climate, quality of life, and marketing.

Target Industry Identification

What Are Target Industries?

In economic development, targeting is the process of focusing a community's resources and policy efforts to support specific industries. These industries are targeted because they match local competitive assets and aspirations and have the greatest catalytic effect on overall economic growth. These industries become audiences for external marketing and their needs should help prioritize local investments and programs. Clear, community-supported targeting ensures that all organizations in a region understand the role they play and are working in concert towards a shared vision: stimulating overall prosperity through job creation.

Why Focus on Target Industries?

All communities face resource limitations for economic development initiatives. Dollars and staff time must be spent on activities that offer the best opportunity for the community to achieve its goals. Most economic development organizations focus on four to six industries, usually concentrating on primary employers (those businesses whose goods and services bring new dollars into the local economy, see side bar) but also ones with local significance, such as tourism and the arts.

Targeted economic development strategies are most successful when they are truly comprehensive, integrating all local organizations and assets, both public and private, into a coordinated plan. Coordination includes aligning infrastructure investments, public policy decisions, marketing materials, educational curricula, workforce development programs, and other regional programs around the same set of industries. This process ensures that efforts from diverse organizations are not counter productive, creates a cohesive sense of identity, and reassures businesses that leaders are committed to their long-term success.

Targeting specific industries does not mean that other industries will be ignored or stagnate. Targeting affects overall economic growth by focusing on industries with strong multiplier

What is a Primary Employer?

Primary employers are businesses that export goods and services outside of the local economy. These exports inject new dollars into the economy, resulting in increased wages and jobs as revenue earned by the business is spent on employee salaries and goods and services that it purchases from local suppliers. As this funding is earned, it is redistributed throughout the rest of the economy, multiplying in impact. Manufacturing and software companies are examples of primary employers.

What is a Secondary Employer?

Secondary employers serve the local community. A majority of the goods and services created by those organizations are consumed within the community. While these goods and services are important staples of a community, the multiplier effect of spending is less than that by primary employers. Retail and construction are examples of secondary employers.

effects. The heightened business activity, new jobs, new incomes, and new spending that come from investments in these industries spurs growth across other sectors.

How Are Target Industries Identified?

Target identification is not a perfect science. Each industry makes operational and location decisions based on different factors and broad market trends, which are constantly in flux. As a result, there is no single mathematical formula for selecting targets.

Instead, selection is an iterative process that considers a mix of quantitative and qualitative factors. Primary considerations are whether industries are expected to grow, match local competitive strengths, and align with community vision. Some industries may be already strongly concentrated in a region, with numerous existing companies, research programs at universities, and training centers for skilled workers. Other industries may be emerging in a region, with one or two startups but a path for growth with the proper support and vision.

The foundation for target industry identification began in the Market Assessment, which offers a competitive assessment of local strengths and opportunities, including industry cluster trends and assets. Following this analysis, Avalanche Consulting asks a variety of questions about each potential industry. Questions considered by Avalanche when selecting target industries include:

- Does the cluster have an existing **regional presence**?
- Is the cluster growing sufficiently at the **national or international level** to merit targeting?
- Does the area have **competitive assets to expand** the cluster in the future?
- Would cluster growth result in **improved economic conditions** within the community?
- Will the cluster help the community reach its **economic development goals**?
- Does the cluster offer employment positions at a **variety of educational and skill levels** that create opportunities for the entire local population?
- Does the cluster fall within broader **regional target industries**?
- Is the cluster **supported by state and regional programs** and incentives?

Target Industries & Niche Sectors

Top-level target industries are generally grouped into large clusters, such as “Information Technology.” These broad industry names encompass a wide range of business activities and are necessary to communicate a region’s broad inventory of competitive assets.

Within each of these broad target industry clusters, it is important to identify specific niche sectors to differentiate the unique local assets. The more narrowly defined a niche sector, the more specific a region can be with support efforts and marketing messages. Niche sector targeting also reduces the number of competitor regions.

For example, many economic development organizations target Information Technology, but few specifically target the Digital Media niche. Additionally, by selecting specific niche sectors, such as Digital Media, local programs can be more effectively tailored to support the industry, informing decisions on marketing materials, local public school programs, the design of a business park, and how building codes are crafted.

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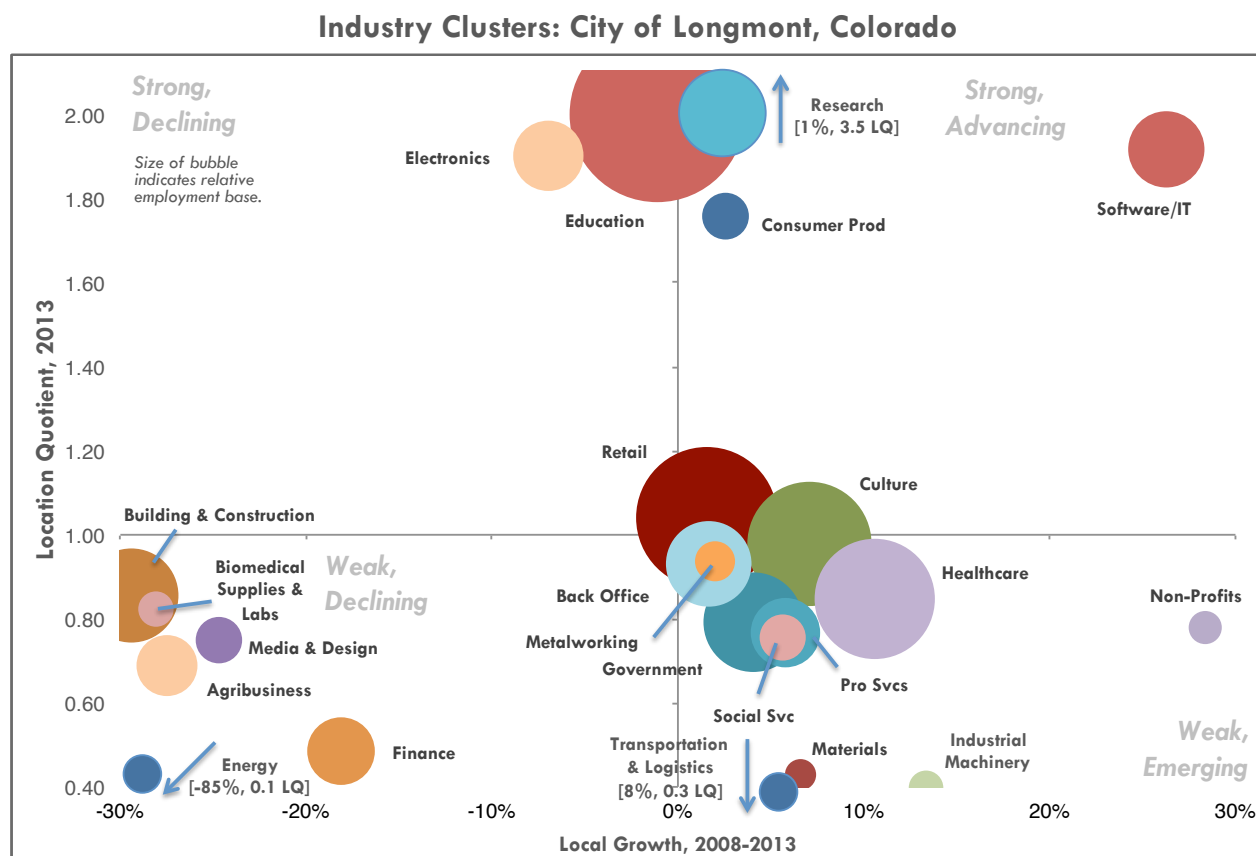
An important tool used in the selection of targets is the Industry Cluster Analysis previously discussed in the Market Assessment report. A simplified version of the Industry Cluster Bubble Chart is displayed below, illustrating important trends in Longmont's economy, particularly the size of industries, which industries are growing or shrinking, and how concentrated each industry is relative to the national average.

The Location Quotient (LQ) is a measure of the relative concentration of an industry in a local economy compared to the average concentration nationally. An LQ of 1.5 indicates that the local economy has 50% more jobs per capita in that industry than the national average. An LQ of 1.0 indicates parity, and an LQ below 1.0 indicates a below-average employment concentration in that industry. The Cluster Bubble chart shows LQ by industry on the vertical axis, and 5-year job growth on the horizontal axis. The size of the bubble indicates the total number of jobs in Longmont.

As noted in the previous report, industries located in the top-right quadrant are considered Strong and Advancing, with higher than average concentration and positive growth. Some of Longmont's greatest industry strengths in this quadrant are in **Software / IT**, **Research**, and **Consumer Product Manufacturing**.

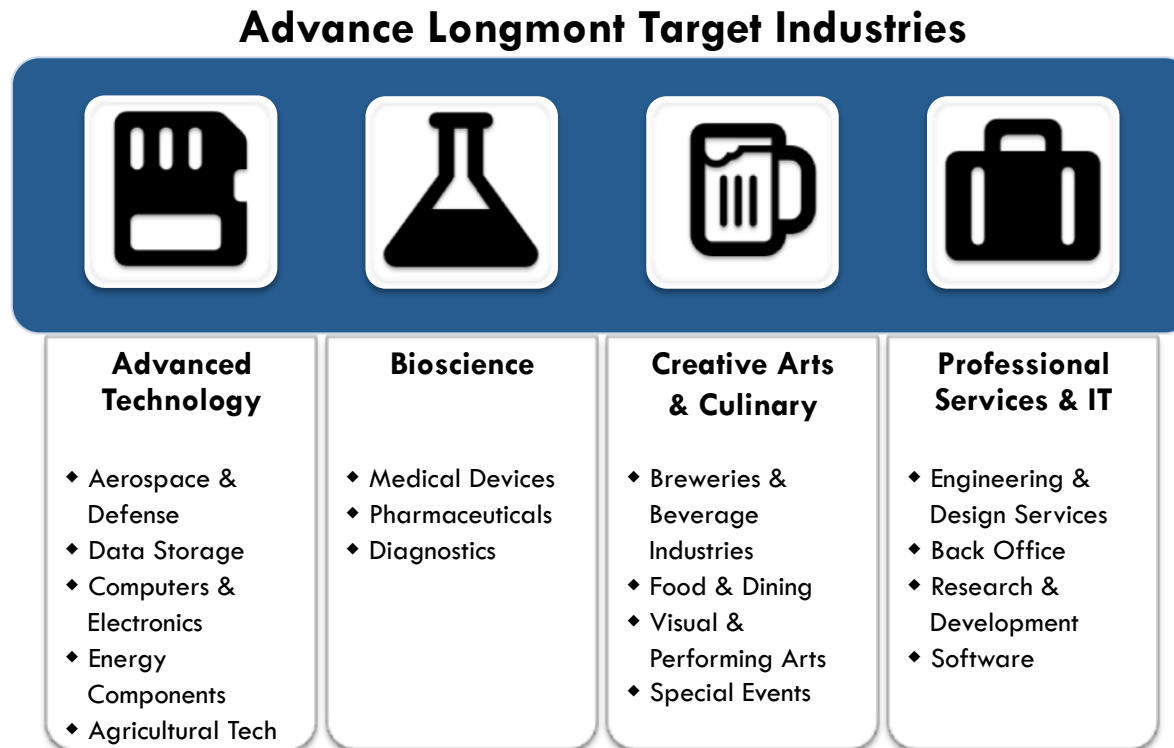
Another significant sector is the bottom-right quadrant, which contains Emerging industries that are currently less concentrated but creating jobs. Significant emerging industries in Longmont include **Industrial Machinery**, **Materials**, **Professional Services**, and **Metalworking**.

These cluster strengths, Longmont competitive assets, and aspirational goals all played an important part in target industry identification.



Longmont Target Industry Recommendations

After thoroughly examining potential industries, the consulting team recommends the following target industries and niche sectors seen in the table below. These industries were identified specifically for Longmont, independent of regional targets, but they fit in very well with Metro Denver’s target industries, thus aligning state, regional, and local efforts along consistent lines.



Related Metro Denver targets include: Aerospace, Aviation, Bioscience, Energy, and Information Technology-Software.

The next pages include brief target industry summaries followed by more detailed profiles for each target industry.

Longmont Target Industry Summaries

Advanced Technology

Longmont is a uniquely positioned community with significant assets both in the innovation and design of new technologies and the manufacturing and production of products and agriculture. Longmont has diverse existing concentrations of Advanced Technology firms in data storage, electronics manufacturing, fabricated metal product manufacturing, and related research and development. Technology design and manufacturing firms are supported by strong workforce training programs at Front Range Community College and the proximity to research at the University of Colorado and Colorado State University. While the national Advanced Technology sector is beginning to rebound after job losses through the recession, Longmont's industry never stopped growing. Longmont can continue to build on its unique workforce, utility, and other assets with proper support, particularly in niche sectors: Aerospace & Defense, Data Storage, Computers & Electronics, Energy Components, and Agricultural Technology.

Bioscience

Technological innovation and an aging population continue to drive innovation in medical fields across the nation, and Longmont is well-positioned to play a major role in the Bioscience industry. Research plays a prominent role in Bioscience, and Longmont has proven to be a highly innovative community, with a significant concentration of residents inventing new patents each year and a rare presence of chemical, pharmaceutical, and other biological product manufacturers. Longmont's strong Advanced Technology manufacturing assets, concentrated research and innovation, affordable utilities, and existing company base place it in a competitive position for Bioscience development, with niche sectors of Medical Devices, Pharmaceuticals, and Diagnostics.

Creative Arts & Culinary

Creative Arts & Culinary may seem a non-traditional economic development target, but the industry significantly enhances the local quality of life and serves as an export industry by drawing in visitors to spend money in Longmont. Longmont is staged to see continued growth in the Creative Arts & Culinary industry. Local assets include high-quality water, nationally recognized breweries, a large and diverse arts community, a fairground, parks and trails, relative affordability, and a growing dining and entertainment sector. Niche sectors identified for this target include: Breweries & Beverage Industries, Food & Dining, Visual & Performing Arts, and Special Events.

Professional Services & IT

Professional Services & IT continues to grow as one of the fundamental cornerstones of the modern US economy, and Longmont has strong existing strengths in this industry and significant room for growth. Longmont has a well-educated population and draws workers from throughout the Front Range, including a steady supply of talented graduates from regional universities and colleges. These workforce assets are critical to the Professional Services & IT industry and in combination with a unique publically owned fiber optic broadband network, affordable utilities, and relative affordability help make Longmont a highly competitive location for this industry. Professional Services & IT represents high-paying primary jobs that offer opportunities at a range of educational levels and lay a foundation for overall economic growth by providing services to local clients as well as exporting across the nation. Longmont has niche strengths in Engineering & Design Services, Back Office, Research & Development, and Software.

Target Timing and Approach

The final report, **Implementation Plan**, will outline specific tactics for supporting development of each target industry identified in this report. Organizations throughout Longmont will encourage job creation and capital investment in target industries through three primary activities: **entrepreneurial and startup support, encouraging local business expansion and retention by responding to their needs, and recruiting new companies to the region.** The balance of efforts between entrepreneurship, expansion & retention, and recruitment will vary among targets based on their needs. A recruitment target will require more external marketing and business development, for example, than an entrepreneurship target, which may require improvements to Longmont's availability of incubator space.

Timing is also an important consideration. Some target niche sectors are already established locally and may have potential to grow immediately while other industries may be emerging locally and nationally, requiring mid- to long-term development tactics. Each target's potential is qualified as **immediate, mid-term, or long-term:**

Immediate Opportunity:

- Longmont has adequate assets and industry presence to immediately begin pursuit of the target. Examples include the expansion of a strong existing sector, such as Data Storage, or ones that could flourish with simple improvements to Longmont's asset mix.

Mid-Term Opportunity:

- These sectors are established in the community, with some companies, workforce programs, natural resources, or infrastructure strengths, and are forecast to grow. These opportunities have strong prospects, but Longmont lacks one or more critical assets necessary to be a highly competitive location today.

Long-Term Opportunity:

- These sectors are forecast for strong growth and align with Longmont's goals but currently have a limited local presence. Longmont either lacks several critical assets necessary to compete or the sector is still emerging nationally. The Implementation Plan will recommend tactics to increase opportunities in these sectors in the future.

The following tables recommend Longmont's approach and timing for each niche sector.

| ADVANCE LONGMONT TARGET TIMING & APPROACH | | | | |
|---|-----------|-------------------------------|--------|---------|
| Timing | | Economic Development Approach | | |
| ADVANCED TECHNOLOGY | | Recruit | Retain | Startup |
| Aerospace & Defense | Immediate | 70% | 20% | 10% |
| Data Storage | Immediate | 10% | 80% | 10% |
| Computers & Electronics | Immediate | 40% | 50% | 10% |
| Energy Components | Mid-term | 40% | 40% | 20% |
| Agricultural Technology | Mid-term | 60% | 10% | 30% |
| BIOSCIENCE | | Recruit | Retain | Startup |
| Medical Devices | Immediate | 60% | 20% | 20% |
| Pharmaceuticals | Immediate | 20% | 70% | 10% |
| Diagnostics | Long-term | 70% | 0% | 30% |
| CREATIVE ARTS & CULINARY | | Recruit | Retain | Startup |
| Breweries & Beverage Industries | Immediate | 10% | 50% | 40% |
| Food & Dining | Immediate | 10% | 40% | 50% |
| Visual & Performing Arts | Mid-term | 10% | 40% | 50% |
| Special Events | Long-term | 40% | 20% | 40% |
| PROFESSIONAL SERVICES & IT | | Recruit | Retain | Startup |
| Engineering & Design Services | Immediate | 10% | 60% | 30% |
| Back Office | Mid-term | 70% | 20% | 10% |
| Research & Development | Immediate | 40% | 50% | 10% |
| Software | Immediate | 30% | 50% | 20% |

Target Industry Profiles

The following pages include profiles of each target industry and their niche sectors. The profiles provide a discussion of industry and niche economic trends, business needs of prototypical firms, and key marketing messages highlighting Longmont's competitive strengths. The final report, Implementation Plan, will recommend organizational efforts supportive of recruitment, retention, expansion, and entrepreneurship in each target industry.

Data tables in the target industry profiles show:

- total City of Longmont employment by NAICS code subsector,
- the overall concentration (LQ) of each sector in Longmont,
- five-year recent growth of the sector from 2008 to 2013 in both Longmont and the US,
- five-year forecast growth of the sector from 2013 to 2018 in both Longmont and the US, and
- the average salary for the subsector in both Longmont and the US.

Advanced Technology

About the Industry

The Advanced Technology Industry includes companies that utilize newly developed technology in their operations. The manufacturing of products and components are a fundamental competency underlying the Advanced Technology industry. Advanced Technology includes the use of complex materials, circuitry, computer-operated machinery, and sophisticated engineering in the production process. Advanced Technology is used to produce innovation-intensive products such as aircraft, including unmanned aerial vehicles (UAV), mobile devices, semiconductors, machinery, and electronic equipment. Companies that supply the Advanced Technology cluster may be found in metal and machining fields.

The rise of Advanced Technology and automation in manufacturing processes has increased the competitiveness of domestic manufacturing operations but also reduced the number of required workers. On one hand, new technology has significantly increased the efficiency of production, requiring fewer hands-on workers. On the other hand, increased efficiency has helped retain manufacturing operations in the US despite lower labor costs overseas. Technological innovation within manufacturing has also created new opportunities for workers, with demand rising for those with computer training and skills necessary to design, construct, and operate technologically driven processes.

Advanced Technology companies tend to have high demand for locations with affordable and redundant utilities, strong technical training programs, related university research and development, and reliable transportation infrastructure.

From 2008 to 2013, Advanced Technology employment in the US declined 8%, with many job losses occurring during the recent recession. Longmont bucked these broader trends, with Advanced Technology growing 8% in the city over the same period. Several Advanced Technology sectors in Longmont experienced significant growth over this period, including Electrical Equipment Manufacturing (170% growth); Data Processing, Hosting, & Related Services (74%); and Communication & Energy Wire & Cable Manufacturing (59%). Advanced Technology employment is projected to remain flat in Longmont and the US over the next five years, and while that may appear low, it stands in sharp contrast to employment declines of recent years.

With an overall Location Quotient (LQ) of 1.3, Advanced Technology employment is more concentrated in Longmont than the national average. Highly concentrated sectors in Longmont include: Data Processing, Hosting, & Related Services (7.8 LQ); Semiconductor & Other Component Manufacturing (6.3 LQ); Communication & Energy Wire & Cable Manufacturing (3.7 LQ); and Computer Storage Device Manufacturing (3.1 LQ). Some sectors are even more concentrated when included companies outside the city limits in the greater Longmont Region, which includes all of Boulder and Weld Counties. For example Computer Storage Device Manufacturing has an LQ of 10.9 in the region and Navigation, Measuring, and Control Instrument Manufacturing has an LQ of 7.7.



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Advanced Technology companies pay higher than average salaries in Longmont, making their positions highly sought after. The average salary of an Advanced Technology position in Longmont is \$70,600 annually, compared to \$48,900 for all industries in Longmont. The local Advanced Technology average salary is also slightly higher even than the equivalent national average. Sectors such as Machinery Manufacturing; Navigational, Measuring, & Control Instrument Manufacturing; and Electrical Equipment Manufacturing have average salaries exceeding \$100,000 annually.

Advanced Technology

Longmont, CO

| NAICS Code | Subsector | Longmont Jobs, 2013 | LQ, 2013 | | Recent Growth, 2008 - 2013 | | Forecast Growth, 2013 - 2018 | | Average Salary, 2013 | |
|--------------|---------------------------------------|---------------------|------------|----------------------|----------------------------|------------|------------------------------|-----------|----------------------|-----------------|
| | | | Longmont | Boulder & Weld Ctys. | Longmont | US | Longmont | US | Longmont | US |
| 2211 | Electric Power Gen. Trans. & Dist. | 5 | 0.0 | 0.5 | 0% | -2% | 0% | 0% | - | \$99,100 |
| 3253 | Pest., Fert., & Other Ag. Chem. Mfg. | 0 | 0.0 | 2.0 | - | 1% | - | -7% | - | \$77,400 |
| 326 | Plastics & Rubber Products Mfg. | 122 | 0.5 | 0.6 | -25% | -10% | -55% | -2% | \$41,700 | \$47,800 |
| 332 | Fabricated Metal Product Mfg. | 562 | 1.1 | 0.9 | 2% | -7% | 9% | 1% | \$49,900 | \$51,400 |
| 333 | Machinery Manufacturing | 195 | 0.5 | 1.2 | -11% | -7% | -4% | -1% | \$59,100 | \$64,100 |
| 334112 | Computer Storage Device Mfg. | 26 | 3.1 | 10.9 | -72% | -16% | -80% | -14% | \$103,200 | \$129,400 |
| 334119 | Other Comp. Peripheral Equip. Mfg. | 21 | 1.7 | 4.4 | -16% | -18% | -76% | -15% | \$73,100 | \$95,000 |
| 3344 | Semiconductor & Other Comp. Mfg. | 870 | 6.3 | 1.6 | -6% | -13% | 2% | -4% | \$67,900 | \$88,400 |
| 3345 | Navig., Measuring, & Ctrl. Inst. Mfg. | 200 | 1.4 | 7.7 | 15% | -11% | 10% | -1% | \$75,100 | \$90,300 |
| 3346 | Mfg. Magnetic & Optical Media | 23 | 3.1 | 2.8 | -13% | -45% | 5% | -31% | \$110,700 | \$91,900 |
| 3351 | Electric Lighting Equip. Mfg. | 5 | 0.3 | 0.6 | 0% | -22% | 0% | -10% | - | \$60,000 |
| 3353 | Electrical Equipment Manufacturing | 52 | 1.1 | 1.4 | 170% | -11% | 13% | -5% | \$116,700 | \$65,500 |
| 33591 | Battery Manufacturing | 5 | 1.2 | 0.8 | - | -3% | -100% | 0% | \$40,200 | \$56,900 |
| 33592 | Com. & Energy Wire & Cable Mfg. | 28 | 3.7 | 2.7 | 59% | -13% | 22% | 2% | \$53,000 | \$62,800 |
| 33593 | Wiring Device Manufacturing | 0 | 0.0 | 0.5 | - | -16% | - | -12% | - | \$58,700 |
| 33599 | All Other Elect. Equip. & Comp. Mfg. | 58 | 4.5 | 1.0 | 24% | -5% | 21% | 11% | \$51,900 | \$61,000 |
| 3364 | Aerospace Product & Parts Mfg. | 0 | 0.0 | 0.1 | -50% | -3% | 0% | 3% | - | \$89,500 |
| 481 | Air Transportation | 0 | 0.0 | 0.0 | - | -9% | - | 0% | - | \$66,000 |
| 4881 | Air Transportation Support Activities | 14 | 0.2 | 0.3 | -8% | 0% | -58% | 11% | \$86,600 | \$45,600 |
| 518 | Data Prcss., Hosting & Related Svcs. | 672 | 7.8 | 2.0 | 74% | -1% | 1% | 4% | \$94,500 | \$85,200 |
| Total | | 2,858 | 1.3 | 1.4 | 8% | -8% | 0% | 0% | \$70,600 | \$67,900 |

Source: Avalanche Consulting using data from EMSI

LQ = Location Quotient: Per capita concentration of the industry as % of US concentration

Niche Sectors

The following Advanced Technology target niche sectors are recommended for Longmont:

Aerospace & Defense includes a wide range of activities related to aviation and defense sectors, including aircraft, spacecraft, and propulsion system design and manufacturing; Unmanned Aerial Vehicles (UAVs); satellite technologies; airplane maintenance, repair, and operations (MRO); and other operations. Aerospace & Defense manufacturing is a vertical sector, providing goods and services to customers with highly specialized needs and encompassing the design of products, component manufacturing, final product assembly, testing, and distribution. Typical site selection requirements include secure locations, access to a skilled workforce (including both engineers and production workers), affordable and reliable transportation infrastructure for receiving raw materials and distributing finished goods. Many Aerospace & Defense firms also require airfields with adequate capacity to allow testing of aircraft and UAVs and hanger space for storage. Aviation firms, including corporate jets, regional MROs, and other operations look for airports with appropriately sized runways, hangar space, modern facilities, and strong transportation access.

Data Storage includes both data centers and providers of data storage devices. Data centers are facilities dedicated to hosting and processing digital information and related support services. These operations are comprised of extensive computer systems capable of collecting and managing data at high speeds. Some data centers are third-party operations that manage data for client firms while others are directly owned and operated by a parent company, such as Amazon or Apple. Data centers feature high concentrations of advanced electronics and thus require very large amounts of electricity to power and cool computers. As a result, data centers tend to seek locations with competitive electricity rates. To avoid disruption of service, data centers typically locate in locations safe from natural disasters and other risks. Reliable broadband infrastructure is an absolute requirement.

Data storage firms produce hard drives and other related devices for computers, data centers, and mobile devices. The industry is innovation intensive, with companies constantly exploring ways to make hard drives faster, smaller, more energy efficient, and with larger capacities. Data storage firms tend to seek locations with skilled workers, affordable electricity, and proximity to research centers.

Computers & Electronics covers the design and manufacture of electronic devices, including computers, semiconductors, control instruments, lighting technology, and other advanced subsectors. Semiconductors and other components in particular are the basis of modern electronics and a \$250 billion sector globally. Semiconductors can now be found in mobile devices, tablets, computers, photovoltaic cells, and many other devices. Longmont has an incredibly high concentration of employment in semiconductor manufacturing, with an LQ of 6.3, over six times the national average. Computers & Electronics firms are highly innovative, continuously

utilizing research and development to improve the efficiency and cost of devices. Computers & Electronics firms seek locations near strong research centers and universities, a highly skilled workforce, and affordable land, energy, and water.

Energy Components is a diverse and vertically integrated industry that encompasses activities related to the production, storage, and sale of energy. Traditionally, the Energy sector has been largely limited to activities related to the extraction, transportation, and refinement of oil and gas resources. In recent years, however, renewable sectors have experienced significant growth, especially in areas such as solar, wind, and biomass production. The sector also includes battery technologies; electric power production, transmission, and distribution; and affiliated support activities. Depending on the specific energy market, firms in this sector generally require proximity to extraction operations and refineries, university research programs in energy technologies, and an existing workforce skilled in manufacturing and extraction operations. The manufacturing of replacement and customized components for drilling and other extraction technologies is growing especially quickly, and these operations tend to look for strong, traditional manufacturing locations within proximity of shale play and other onshore mining operations.

Agricultural Technology refers to a range of activities related to agricultural planning, production, and processing, including the manufacture of agricultural machinery, development of pesticides and fertilizers, advanced research and genomics, and surveying and mapping of land use patterns. Although traditional agricultural production employs fewer individuals than ever in America, agriculture remains one of the staple domestic and export industries. New technologies continue to drive innovations in production. Genetically engineered crops, better management techniques, and new machinery allow farmers to produce greater yields with fewer inputs. Agricultural Technology firms tend to locate near research universities, particularly larger state agricultural schools, in proximity to actual farming activities, and in locations with strong manufacturing bases and technical development centers.

Longmont's Competitive Strengths

The following Competitive Strengths may also be referred to when crafting marketing materials and sales messages for Advanced Technology firms.

- Advanced Technology sectors tend to be vertically integrated, requiring a diverse range of workers, from management to research to manufacturing. Longmont is well positioned from a workforce perspective, with a strong local base of innovators, engineers, technology manufacturing workers, and management. Longmont also draws workers from across the Front Range, including graduates from the University of Colorado and Colorado State University. Additionally, training programs at Front

Range Community College are strong and work with employers to ensure new graduates have the skills necessary to support growth of local Advanced Technology firms.

- Longmont already has a strong, existing base of Advanced Technology firms, employing nearly 3,000 people in the city itself, with a LQ of 1.3 and strong growth in recent years, despite the recession.
- Longmont is currently one of the strongest data storage manufacturing centers in the world. The concentration of workforce and infrastructure makes Longmont a highly competitive location to grow existing companies, attract new firms, and develop startups.
- Longmont is also home to a high concentration of innovators, with many residents working on research and development of new technologies, seen in the high concentration of patent inventors. These skilled and creative residents provide a highly attractive foundation for Advanced Technology firms thinking about locating or expanding in Longmont as well as startups hoping to build businesses on newly developed technology.
- Longmont offers some of the most competitive utilities in the state and nation, with both incredibly affordable and redundant electricity. This is particularly attractive to data centers and manufacturers with high power demands.
- In addition to reliable utilities, Longmont is located in a relatively secure location from natural disasters and military threats, making it a competitive location for data centers, aerospace, and other sensitive sectors that require security. Colorado's security is demonstrated in the high concentration of Air Force and other military bases in the state, including NORAD.
- The new FBO, Elite Aviation, at the Longmont airport, has aggressive plans to renovate the airport and build business. With a runway expansion and continued support, Vance Brand Municipal Airport could be a highly competitive location for maintenance, repair, and operations firms looking to service regional and other planes.
- Longmont Airport also has 120 acres of appropriately zoned land adjacent to the airport available for lease and development. This property is highly attractive to aerospace firms looking to conduct testing and storage on the airport site, including UAV developers.
- Longmont's geographic location in proximity to expanding oil and gas extraction operations in Colorado and the Western US make the area a competitive strategic location for energy component manufacturing and servicing activities. Longmont already has a number of firms engaged in manufacturing parts for extraction companies, and the strong fabricated metal product manufacturing sector is highly supportive of these activities.
- Transportation access to and from Longmont is relatively strong, with manufacturers reporting ease of bringing in components and exporting manufactured goods. Easy access to Denver International Airport also makes Longmont competitive as a location for businesses exporting and conducting business across the nation and world.
- Nearby University of Colorado and Colorado State University conduct research in a range of Advanced Technology sectors, with strong potential for private sector business applications and development, which can be conducted more effectively in Longmont while maintaining close proximity to research programs at the universities.

ADVANCE LONGMONT – REPORT 2: TARGET INDUSTRY ANALYSIS

- Relative affordability and regulatory ease in Longmont compared to Boulder and other Front Range cities, make it a competitive location for Advanced Technology operations.
- Longmont's agricultural history, existing agricultural operations, strong manufacturing base, research and development capacity, and proximity to research programs at CSU make it a highly attractive location for Agricultural Technologies development.
- The State of Colorado has a strong business climate, with competitive tax rates and regulations.

Advance Longmont Target Industries – Advanced Technology



Industry Definition

Advanced Technology describes industry sectors that utilize newly developed technology in their operations. Advanced Technology includes the use of complex materials, circuitry, computer-operated machinery, and sophisticated engineering in the production process.

Longmont Competitive Strengths

- Existing concentration of manufacturing and technology workforce with strong training programs at Front Range Community College
- Affordable and redundant power and other utilities
- Major concentration of existing Advanced Technology firms, particularly in Data Storage
- Local private research & development programs and proximity to CU and CSU
- Highly innovative community
- Vance Brand Municipal Airport
- Transportation infrastructure, including proximity to Denver International Airport
- Competitive business climate and regulations

Key Figures

- 2,900 jobs in Longmont
- 1.3 LQ
- 8% growth from 2008-2013
- \$70,600 average salary

Niche Sector Targets

- Aerospace & Defense
- Data Storage
- Computers & Electronics
- Energy Components
- Agricultural Tech.



Bioscience

About the Industry

Bioscience describes a variety of products and services related to human health, the environment, and general biology. Bioscience includes traditional pharmaceuticals composed of chemical compounds and biomedical drugs derived from living organisms (such as human cells and antibodies). Due to the sheer complexity of drug development combined with government regulations and liability issues, drug development requires deep pockets and patience. As a result, research plays a prominent role in the industry. Bioscience also serves as the basis for a wide array of sophisticated medical devices and equipment.

Bioscience companies typically locate in regions with high levels of talent and capital. Innovation is the lifeblood of the Bioscience sector. Advancing understanding in the field requires highly specialized workers. As a result, firms tend to cluster near major research universities. Given the extraordinary costs and time associated with a typical drug development cycle, biotechnology firms may operate for years before generating significant revenue. The availability of affordable laboratory space and financing, including venture capital funding, can be crucial in sustaining operations for smaller, entrepreneurial companies.

Bioscience employment in the US grew 4% from 2008 to 2013, despite the recession. In contrast, in Longmont, employment declined 17% over this period. These trends were mirrored in the greater Longmont Region of Boulder and Weld Counties, where Bioscience employment declined 21%. With the exception of Basic Chemical Production, all local Bioscience sub-sectors experienced employment declines, including Pharmaceutical Preparation Manufacturing, In-Vitro Diagnostic Substance Manufacturing, Biological Product Manufacturing, and Medical Equipment & Supplies Manufacturing.

Despite these declines, Bioscience remains slightly more concentrated in Longmont than the national average. With an LQ of 1.1, Bioscience employment in Longmont is approximately 10% higher than the US average. Three Bioscience subsectors, however, are significantly more concentrated. With an LQ of 3.8, Biological Product Manufacturing is the most concentrated local subsector. Pharmaceutical Preparation Manufacturing is also highly concentrated in Longmont, with an LQ of 3.1, followed by Basic Chemical Production, with an LQ of 1.8.

Longmont's Bioscience jobs are characterized by high salaries. In 2013, the average Bioscience worker in Longmont earned more than \$114,000. Nationally, the average Bioscience salary is less than \$80,000, and the average salary for all industries in Longmont is only \$48,900. At nearly \$138,000, Pharmaceutical Preparation Manufacturing has the highest average annual salary of any Bioscience subsector in Longmont.



ADVANCE LONGMONT – REPORT 2: TARGET INDUSTRY ANALYSIS

Bioscience

Longmont, CO

| NAICS Code | Subsector | Longmont Jobs, 2013 | LQ, 2013 | | Recent Growth, 2008 - 2013 | | Forecast Growth, 2013 - 2018 | | Average Salary, 2013 | |
|--------------|------------------------------------|---------------------|------------|----------------------|----------------------------|-----------|------------------------------|-----------|----------------------|-----------------|
| | | | Longmont | Boulder & Weld Ctys. | Longmont | US | Longmont | US | Longmont | US |
| 3251 | Basic Chemical Manufacturing | 80 | 1.8 | 0.6 | 118% | 0% | -10% | -1% | \$61,100 | \$90,000 |
| 325411 | Medicinal & Botanical Mfg. | 0 | 0.0 | 11.9 | - | -1% | - | 3% | - | \$109,200 |
| 325412 | Pharmaceutical Preparation Mfg. | 214 | 3.1 | 2.1 | -16% | -3% | 1% | 3% | \$137,900 | \$113,500 |
| 325413 | In-Vitro Diagnostic Substance Mfg. | 0 | 0.0 | 0.3 | -100% | 16% | - | 15% | - | \$103,400 |
| 325414 | Biological Product Mfg. | 43 | 3.8 | 1.0 | -55% | 10% | -18% | 10% | \$114,700 | \$91,800 |
| 3391 | Medical Equipment & Supplies Mfg. | 26 | 0.2 | 0.8 | -26% | 2% | -12% | 4% | \$89,100 | \$65,000 |
| 6215 | Medical & Diagnostic Labs | 0 | 0.0 | 0.2 | - | 13% | - | 10% | - | \$57,500 |
| Total | | 363 | 1.1 | 1.1 | -17% | 4% | -5% | 5% | \$114,200 | \$79,800 |

Source: Avalanche Consulting using data from EMSI

LQ = Location Quotient: Per capita concentration of the industry as % of US concentration

Niche Sectors

The following Bioscience target niche sectors are recommended for Longmont:

Medical Devices includes technologically sophisticated products that improve and prolong life. Medical Devices include spinal implants, neurological devices, orthopedics, prosthetics, and other advanced devices. Product development within the Medical Devices sector is research intensive, with innovation driven by new materials, nanotechnologies, robotics, and other technologies. Medical Device firms typically locate close to research universities and hospital systems, which provide a skilled workforce and infrastructure for conducting clinical testing. The presence of advanced manufacturing skills and infrastructure can also play a prominent role in the location decisions of Medical Devices firms.

Pharmaceuticals include drugs created from compounds to treat or prevent disease. The industry also includes the production of basic chemicals and biological compounds utilized in the manufacture of drugs and other products. The Pharmaceutical sector is worth approximately \$200 billion within the US. Pharmaceutical development is an extremely high risk, high reward endeavor. Development costs often run into the billions and it can take many years to bring a new drug to market. The vast majority of new developed market

never makes it to market. At the same time, a blockbuster drug can generate billions of dollars of revenue within a single year. Despite the size and reach of “Big Pharma” companies such as Pfizer and GlaxoSmithKline, the Pharmaceutical sector is relatively diverse, with thousands of smaller companies competing in the market. Despite the growing presence of generic drugs, a volatile pipeline of new drugs, and sustained efforts to reduce health care costs, demographic changes in the US combined and expanding international markets are expected to continue to drive growth. Pharmaceutical firms often cluster in proximity to regions that are already home to leading Pharmaceutical companies as well as communities with advanced research institutions and universities, as both types of locations are rich in commercialization opportunities and skilled workers.

Diagnostics is another emerging sector, with new technologies such as gene identification, bioinformatics, and others facilitating more effective patient evaluation by medical professionals. The industry has been made possible by discoveries in human and agricultural life science research and private companies finding creative ways to use these scientific advancements. The rise of diagnostic tools and services is helping reduce costs in the healthcare system through early diagnosis, customized treatment regimes, and more accurate medical reporting. Given the relative youth of the sector, many Diagnostics firms are startups and frequently locate in proximity to major research universities and strong hospital systems.

Longmont’s Competitive Strengths

The following Competitive Strengths may also be referred to when crafting marketing materials and sales messages for Bioscience firms.

- The Longmont area has a strong existing cluster in Bioscience, with an overall employment LQ of 1.1 and very high subsector concentrations in Basic Chemical Manufacturing, Pharmaceutical Preparation Manufacturing, and Biological Product Manufacturing. The presence and success of these firms demonstrate the viability of Longmont as a Pharmaceutical center and the presence of a skilled workforce.
- Longmont’s strengths in Advanced Technology and Professional Services & IT converge with Biosciences to make it an even more competitive location for companies. The Longmont area addresses a diverse range of site selection needs for Medical Devices and Pharmaceuticals, including a skilled manufacturing workforce, affordable electricity and water, research and development programs, and proximity to two major research universities.
- Longmont United Hospital is an award winning medical facility, pioneering innovative treatment techniques and providing a location for collaboration and testing of new technologies, services, and programs.

Advance Longmont Target Industries – Bioscience



Industry Definition

Bioscience describes a variety of cross-disciplinary products and services related to human health, the environment, and general biology, including pharmaceuticals, medical devices and equipment, diagnostic therapies, and related research and development.

Longmont Competitive Strengths

- Existing concentration of Bioscience companies, such as Amgen. Particularly strengths in Chemical, Pharmaceutical, and Biological Product Manufacturing
- Affordable and redundant power and other utilities
- Local private research & development programs and proximity to CU and SCU
- Highly innovative community
- Longmont United Hospital
- Competitive business climate and regulations

Key Figures

- 360 jobs in Longmont
- 1.1 LQ
- -17% growth from 2008-2013
- \$114,200 average salary

Niche Sector Targets

- Medical Devices
- Pharmaceuticals
- Diagnostics



Creative Arts & Culinary

About the Industry

Creative Arts & Culinary is an important industry for many communities across the US. These businesses create an interesting quality of life amenity for residents and a source of pride, especially when they are home grown. They also draw in visitors who inject new dollars into the community and generate a marketing buzz that radiates outside of the community's borders. Creative Arts & Culinary includes dining, specialty food sales, the visual and performing arts, special events, beverage manufacturing and sale, natural attractions, and other entertainment activities that draw visitors in and serve local residents.

Creative Arts & Culinary grew nationally through the recession, with US employment growing 8% from 2008 to 2012, but Longmont's local industry was stagnant. Creative Arts & Culinary employment grew 0% in Longmont over the same period, with job losses in Food Manufacturing and Traveler Accommodation (hotels) offsetting growth in Breweries, Restaurants, and Grocery Wholesale. There is an opportunity for Longmont to further invest in infrastructure and small business support programs that encourage growth of Creative Arts & Culinary companies.

As the economy continues to slowly recover, domestic travel and recreational spending are expected to rise, spurring further growth in consumption of arts, dining, beverages, and entertainment. Longmont in particular is forecast to see rapid growth in Creative Arts & Culinary, with 12% growth forecast from 2013 to 2018, compared to only 5% nationally.

Creative Arts & Culinary currently has an average concentration of employment in Longmont, but the city has particularly concentrated strengths in Breweries (19.7 LQ) and Restaurants (Full-Service Restaurants – 1.1 LQ; Limited-Service Eating Places – 1.3 LQ). The concentration of brewery employment is almost twenty times higher than the national average, reflecting Longmont's strong place in the globally recognized Colorado brewing industry.

Creative Arts & Culinary are a significant industry for Longmont, adding to the area's strong quality of life and bringing outside money from visitors, but industry jobs pay very low average salaries. Creative Arts & Culinary offers an average salary of \$16,600 annually in Longmont, less than half the overall average salary of \$48,900.



Creative Arts & Culinary

- ◆ Breweries & Beverage Industries
- ◆ Food & Dining
- ◆ Visual & Performing Arts
- ◆ Special Events

ADVANCE LONGMONT – REPORT 2: TARGET INDUSTRY ANALYSIS

Creative Arts & Culinary

Longmont, CO

| NAICS Code | Subsector | Longmont Jobs, 2013 | LQ, 2013 | | Recent Growth, 2008 - 2013 | | Forecast Growth, 2013 - 2018 | | Average Salary, 2013 | |
|--------------|---------------------------------------|---------------------|------------|----------------------|----------------------------|-----------|------------------------------|-----------|----------------------|-----------------|
| | | | Longmont | Boulder & Weld Crys. | Longmont | US | Longmont | US | Longmont | US |
| 311 | Food Manufacturing | 310 | 0.6 | 2.5 | -63% | 1% | 13% | 2% | \$37,000 | \$42,200 |
| 31211 | Soft Drink & Ice Manufacturing | 21 | 0.7 | 0.5 | -18% | -4% | -22% | 0% | \$40,700 | \$49,700 |
| 31212 | Breweries | 199 | 19.7 | 6.0 | 159% | 10% | 25% | 8% | \$37,200 | \$63,000 |
| 31214 | Distilleries | 0 | 0.0 | 1.2 | - | 6% | - | 5% | - | \$78,200 |
| 4244 | Grocery Merchant Wholesalers | 116 | 0.5 | 0.7 | 40% | 7% | 6% | 6% | - | \$51,000 |
| 4451 | Grocery Stores | 745 | 0.8 | 1.0 | 3% | 4% | 3% | 4% | - | \$22,500 |
| 5615 | Travel Arrange. & Reservation Svcs | 23 | 0.3 | 0.4 | -53% | 2% | -76% | 11% | \$53,900 | \$48,700 |
| 7111 | Performing Arts Companies | 5 | 0.1 | 1.0 | -50% | 5% | 0% | 6% | - | \$43,200 |
| 7113 | Promoters of Perf. Arts & Events | 5 | 0.1 | 1.6 | 0% | 17% | 140% | 8% | - | \$35,200 |
| 7114 | Agents & Managers | 0 | 0.0 | 0.1 | - | 17% | - | 10% | - | \$104,200 |
| 7115 | Indep. Artists, Writers, & Performers | 13 | 0.8 | 0.9 | -13% | 11% | -7% | 6% | \$49,400 | \$126,100 |
| 7121 | Museums, Hist. Sites, & Similar Inst. | 28 | 0.5 | 0.2 | 4% | 8% | 11% | 6% | \$21,600 | \$31,200 |
| 71392 | Skiing Facilities | 0 | 0.0 | 2.8 | - | 13% | - | 6% | - | \$20,200 |
| 71394 | Fitness & Rec. Sports Centers | 136 | 0.8 | 1.7 | 19% | 11% | 17% | 8% | \$13,800 | \$15,700 |
| 7211 | Traveler Accommodation | 390 | 0.6 | 0.4 | -21% | 5% | 8% | 5% | \$23,800 | \$27,600 |
| 7221 | Full-Service Restaurants | 1,939 | 1.1 | 1.2 | 14% | 10% | 17% | 5% | \$18,700 | \$17,700 |
| 7222 | Limited-Service Eating Places | 2,019 | 1.3 | 1.1 | 9% | 11% | 10% | 6% | \$14,200 | \$13,900 |
| 7223 | Special Food Services | 54 | 0.3 | 0.4 | 19% | 9% | 14% | 5% | \$19,000 | \$22,100 |
| 7224 | Drinking Places (Alcoholic Beverages) | 24 | 0.2 | 0.6 | -36% | 3% | -20% | 4% | \$16,700 | \$15,000 |
| 8134 | Civic and Social Organizations | 53 | 0.4 | 0.3 | 20% | 4% | -66% | 5% | \$19,200 | \$17,700 |
| Total | | 6,080 | 0.9 | 1.1 | 0% | 8% | 11% | 5% | \$16,600 | \$17,900 |

Source: Avalanche Consulting using data from EMSI

LQ = Location Quotient: Per capita concentration of the industry as % of US concentration

Niche Sectors

The following Creative Arts & Culinary target niche sectors are recommended for Longmont:

Breweries & Beverage Industries include the production and sales of beer and other beverages, including soft drinks and distilleries. Traditional beverage industries require basic manufacturing skill-sets and infrastructure but also high-quality water, for which Longmont is recognized. Breweries represent the more creative side of the beverage industry, encompassing the development and production of beers, both from small-scale startups to large organizations. Breweries are also frequently tied to Food & Dining by sometimes selling their products through both storefronts and restaurants. Breweries & Beverage Industries are supported by strong water supplies, distribution infrastructure, and the presence of a culture that embraces production and consumption of their products.

Food & Dining describes more than just traditional grocery stores and fast food restaurants. Food & Dining includes unique restaurants, organic and high-quality grocers, farmers markets, and other edible attractions that make a community a destination for visitors and a desirable place to live. Food & Dining firms tend to locate in communities that purchase and embrace quality foods, are in proximity to local and regional working farms, and support small-business development of restaurants and other retail. These activities are typically homegrown and benefit from a supportive community.

Visual & Performing Arts includes a range of artistic organizations and individuals, including painters, sculptors, writers, filmmakers, theaters, musicians, and others. These activities are also typically homegrown and successful in communities with public and private support for the arts through non-profits, major events, cooperatives and other collective organizations, and physical space such as galleries, theaters, and music venues. This sector enhances local quality of life but also benefits from a strong visitor economy, drawing non-residents into the community. Firms and individuals in the arts tend to benefit from affordable living and working space, availability of flexible studio spaces, public and private financial support for the arts, and proximity for collaboration with other artists.

Special Events covers a range of activities including business conventions, trade shows, concerts, races, rodeos, weddings, cultural events, holiday festivals, and more. Special Events serve as a major draw to a community, bringing in business travellers and tourists and enhancing local quality of life by providing entertainment for residents. This sector requires appropriate physical infrastructure, such as modern convention centers, fairgrounds and other park space, trail networks, and other event spaces. Strong transportation infrastructure connecting a community to interstate highways and major airports is also essential. An adequate supply of hotels ensure that visitors also stay in the community and frequent local businesses during their visit.

Longmont's Competitive Strengths

The following Competitive Strengths may also be referred to when crafting marketing materials and sales messages for Creative Arts & Culinary firms.

- Longmont's greatest Creative Arts & Culinary assets are its breweries and brewpubs, including Left Hand, Oskar Blues, the Pumphouse, and many new and expanding breweries. These breweries are regionally and nationally recognized and have already put Longmont on the Breweries & Beverage Industries map, including a critical spot on the Colorado Beer Trail.
- Longmont's high-quality water and affordable power make it a very attractive location for Breweries & Beverage Industries manufacturing operations, as well as natural foods and processing in Food & Dining.
- Longmont has an existing, diverse concentration of restaurants, with new ones opening regularly, including many local creative startups and unique dining experiences, such as the Cheese Importers, Georgia Boys BBQ, and Sugarbeet.
- The traditional downtown in Longmont provides numerous opportunities to concentrate Food & Dining, Breweries, and the arts in an attractive entertainment district.
- The healthy, high-quality food culture in Longmont and the Front Range makes Longmont an ideal location to promote and support Food & Dining through farmers markets, education programs, urban farming, buy local campaigns, and other initiatives.
- The Boulder County Fairgrounds in Longmont provide a strong venue for many special events and could be further enhanced with appropriate upgrades to attract and host even more events.
- Longmont's strong park and trail systems provide natural venues for events, such as the concerts in the park.
- The art community is well-established in Longmont with a dance academy, music schools, the Longmont Artist Guild, Council for the Arts, Old Firehouse Arts Center, local museum, symphony, concerts, and much more. Art walks, studio tours, and Main Street events expose residents and visitors to the arts community and provide a foundation for growing the Visual & Performing Arts in Longmont and marketing events to residents and visitors.
- Interviews throughout the community identified high demand for a new convention center in Boulder County, and Longmont could be an ideal location for such a facility, offering affordable land and power and proximity to Boulder, Fort Collins, Denver, and other major convention center draws.
- Strong transportation access to Denver International Airport and the rest of the Front Range allow visitors to easily reach Longmont and enjoy the local Creative Arts & Culinary attractions.

| Advance Longmont Target Industries – Creative Arts & Culinary | | |
|---|---|---|
| <div>  <p>Industry Definition</p> <p>Creative Arts & Culinary includes dining, specialty food sales, the visual and performing arts, special events, beverage manufacturing and sale, natural attractions, and other entertainment activities that draw visitors and investment in and serve local residents, enhancing quality of life.</p> </div> | | |
| <p>Longmont Competitive Strengths</p> <ul style="list-style-type: none"> • Longmont has an extremely high concentration of nationally recognized breweries & brewpubs, including Left Hand, Oskar Blues, and the Pumphouse • High-quality water and affordable utilities • Large and diverse existing arts community with strong local support • Strong fairgrounds, parks, and other event venues • Distinct natural foods culture and concentration of shopping options • Expanding dining and entertainment options • Transportation infrastructure, including proximity to Denver International Airport | <p>Key Figures</p> <ul style="list-style-type: none"> • 6,100 jobs in Longmont • 0.9 LQ • 11% forecast growth from 2013-2018 • \$16,600 average salary | <p>Niche Sector Targets</p> <ul style="list-style-type: none"> • Breweries & Beverage Industries • Food & Dining • Visual & Performing Arts • Special Events |
|  | | |

Professional Services & IT

About the Industry

Professional Services & IT is a wide-ranging industry characterized by knowledge-intensive, white-collar occupations that require significant education, advanced skills, and creativity. Professional Services includes positions in architecture, engineering, accounting, management, software, research & development, and business support.

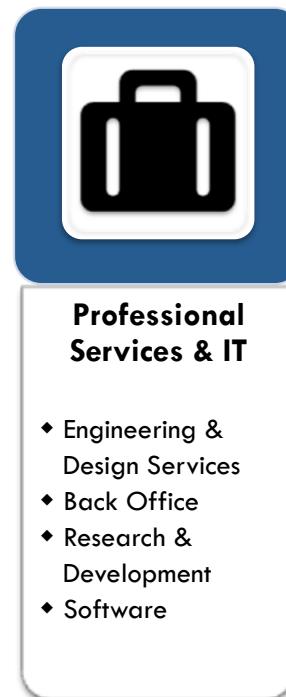
Professional Services & IT continues to grow into one of the country's largest employment bases. Many Professional Services & IT positions require a bachelor's degree as well as a master's or technical degree. Others, such as Back Office may have fewer secondary education requirements. Due to education and specialization requirements, Professional Services & IT often include high-paying professions, resulting in strong secondary job creation impacts in communities in which they are located.

Professional Services & IT firms typically locate in communities with a strong quality of life, affordability, and growing local markets for their services. In today's war for talent, employers must aggressively court the most talented personnel. As a result, the presence of a high quality of life is critical in attracting workers. Proximity to clients, especially in communities with high overall business growth, can also be important in generating demand for Professional Services & IT. At the same time, the Internet has allowed the decentralization of many Professional Services & IT activities. Many firms choose locations based on the desirability of lifestyle.

Firms in this industry typically have few hard infrastructure requirements beyond fast and reliable broadband Internet and proximity to an airport for client travel. Depending on the type of operation, Research & Development firms may have specific infrastructure needs such as laboratory space and utilities.

While the recession slowed the momentum of Professional Services & IT employment growth, the industry grew steadily while most industries lost jobs. Between 2008 and 2013, employment increased 7%. In Longmont, employment in Professional Services & IT grew 4%. Looking ahead, however, the industry is projected to fuel significant job growth both nationally and locally. From 2013 to 2018, the number of Professional Services & IT jobs within Longmont is projected to increase 15%. Sectors forecast to enjoy the highest levels of growth include Management, Scientific & Technical Consulting Services (31% growth), Engineering Services (27%), and Accounting, Booking & Payroll Services, Graphic Design Services, and Computer System Design & Related Services (26% each).

Professional Services & IT employment is more concentrated in the Longmont area than the US average, with an LQ of 1.7. Scientific & Technical Consulting Services is the most concentrated Professional Services & IT subsector in Longmont (8.8 LQ), followed by Surveying



ADVANCE LONGMONT – REPORT 2: TARGET INDUSTRY ANALYSIS

& Mapping Services (7.4 LQ), Software Publishers (3.3 LQ), Graphic Design Services (2.7), Testing Laboratories (1.2 LQ), and Industrial Design Services (1.1 LQ).

Professional Services & IT in Longmont has an average salary more than double the average salary for all industries. On average, their employees earn approximately \$103,600 annually in the area, compared to \$84,800 nationally. Software Publishers and Scientific & Technical Consulting Services feature the highest salaries, averaging more than \$120,000 annually.

Professional Services & IT

Longmont, CO

| NAICS Code | Subsector | Longmont Jobs, 2013 | LQ, 2013 | | Recent Growth, 2008 - 2013 | | Forecast Growth, 2013 - 2018 | | Average Salary, 2013 | |
|--------------|--|---------------------|------------|----------------------|----------------------------|-----------|------------------------------|------------|----------------------|-----------------|
| | | | Longmont | Boulder & Weld Ctys. | Longmont | US | Longmont | US | Longmont | US |
| 5112 | Software Publishers | 353 | 3.3 | 8.1 | -19% | 10% | -6% | 14% | \$125,500 | \$131,500 |
| 51913 | Internet Pub. & Web Search Portals | 16 | 0.4 | 2.0 | 240% | 60% | 18% | 18% | \$88,800 | \$154,500 |
| 5412 | Accting., Bookkeeping, & Payroll Svcs. | 242 | 0.7 | 0.7 | 7% | 1% | 26% | 5% | \$50,400 | \$63,100 |
| 541310 | Architectural Services | 26 | 0.5 | 1.8 | -27% | -26% | -3% | -2% | \$69,000 | \$74,700 |
| 541330 | Engineering Services | 214 | 0.8 | 1.6 | 24% | -2% | 27% | 14% | \$96,300 | \$88,200 |
| 541370 | Surveying & Mapping Svcs. | 100 | 7.4 | 2.0 | -15% | -26% | -5% | -17% | \$48,700 | \$52,000 |
| 541380 | Testing Laboratories | 61 | 1.2 | 1.2 | 92% | 9% | 20% | 9% | \$51,400 | \$68,500 |
| 541420 | Industrial Design Services | 5 | 1.1 | 1.6 | 0% | -4% | 0% | 26% | - | \$76,700 |
| 541430 | Graphic Design Services | 55 | 2.7 | 1.9 | 4% | -15% | 26% | 5% | \$62,700 | \$58,300 |
| 541490 | Other Specialized Design Services | 5 | 1.1 | 2.2 | 0% | -13% | 0% | 21% | - | \$64,900 |
| 5415 | Comp. Systems Design & Related Svcs. | 791 | 1.5 | 2.5 | 19% | 17% | 26% | 19% | \$102,800 | \$102,600 |
| 5416 | Mgmt., Sci., & Tech. Consulting Svcs. | 242 | 0.6 | 1.1 | 8% | 18% | 31% | 23% | \$80,700 | \$85,200 |
| 5417 | Scientific Research & Dev. Svcs. | 1,884 | 8.8 | 4.7 | 0% | 3% | 11% | 9% | \$122,900 | \$107,200 |
| 5611 | Office Administrative Services | 52 | 0.3 | 0.3 | 0% | 8% | 8% | 15% | \$74,900 | \$80,300 |
| 5614 | Business Support Services | 132 | 0.5 | 1.5 | 1% | 3% | 8% | 11% | \$40,500 | \$37,000 |
| Total | | 4,178 | 1.7 | 2.0 | 4% | 7% | 15% | 14% | \$103,600 | \$84,800 |

Source: Avalanche Consulting using data from EMSI

LQ = Location Quotient: Per capita concentration of the industry as % of US concentration

Niche Sectors

The following Professional Services & IT target niches sectors are recommended for Longmont:

Engineering & Design Services includes a range of firms involved in the engineering and design of structure, products, websites, and other fields. This includes engineering of commercial, industrial, and residential properties, and infrastructure projects; Industrial design, which focuses on increasing the functionality and aesthetic appeal of consumer products; and graphic design for digital and other applications. Engineering & Design Services companies typically have few infrastructure requirements beyond broadband Internet and class-A office space. The presence of a major airport can also help facilitate client travel, as many engineering companies operate either nationally or internationally. The availability of talent is critical, especially the ability of companies to attract and retain skilled engineers.

Back Office operations provide administrative, accounting, and information technology support to large organizations. Back Office firms may be third parties, providing specialized services to clients or internal within larger corporations, such as the billing operations for a firm like Samsung. Industries such as banking and insurance also generate significant demand for Back Office services. The growing needs of the health care industry, especially in the management of medical records, patient relationships, and regulatory assurance, is likely to support additional growth in Back Office operations. Back Office operations typically locate in communities with a cost-competitive operating environment, with affordable office space, broadband connectivity, and low- to moderate-skill workforce.

Research & Development occurs in a wide range of industries, from pharmaceuticals to solar power systems to semiconductors. Each of these operations has specific infrastructure and workforce requirements, from wet labs to welding space. Research & Development is unified, however, by the sector's common need for both a highly educated workforce and an environment that embraces innovation. Research & Development activities are conducted in a range of settings: public and private universities often conduct research on fundamental applications and new technologies, private companies conduct in-house research on improving products and commercializing new technologies, and dedicated research firms work on specific tasks and components for clients or sale. Research & Development activities also tend to locate in proximity to major universities and strong business clusters in their sectors and in locations with a lifestyle that appeals to creative workers.



Software includes companies that create computer programs, which serve a wide range of industries and applications, from helping companies efficiently manage internal data systems to developing mobile interfaces to producing games and digital entertainment. Software firms have limited physical infrastructure specific requirements, with firms basing their operations in such diverse environments

as garages and class-A offices. Instead, the priorities of software companies include the availability of a skilled workforce and reliable, fast, and cost-competitive broadband infrastructure. Software companies often flock to locations perceived as “cool,” whether due to a concentration of young people, healthy lifestyle options, arts, culture, and culinary scenes.

Longmont's Competitive Strengths

The following Competitive Strengths may also be referred to when crafting marketing materials and sales messages for Professional Services & IT firms.

- The Longmont area has a well-educated population, with 37% of residents holding a bachelor's degree or higher, well above the national average and revealing the presence of a strong workforce for Professional Services & IT, which tends to require workers with at least minimal advanced training if not a bachelor's and master's degree.
- The presence of universities and community colleges in the region ensures a steady supply of high-skilled workers to local Professional Services & IT firms as well as training programs.
- The Longmont area has a large existing base of Professional Services & IT firms, with nearly 4,200 employees in the city and an LQ of 1.7. The local Professional Services & IT cluster had strong growth through the recent recession and is forecast to have even higher growth in the next five years. Longmont has particularly robust concentrations in Scientific Research and Development Services, Surveying & Mapping Services, Software, and Computer Systems Design & Related Services.
- The expanding local fiber optic broadband network is an incredibly competitive asset for the Longmont area, supporting growth in all niche sectors but especially Software, Engineering and Research & Development.
- The high quality of life and relative affordability of Longmont make it an attractive location for Professional Services & IT firms in the Metro Denver region.
- The diversity and growth of the overall economy in the Longmont area helps create local demand for a range of Professional Services & IT firms, many of which serve local clients in Engineering & Design, Research & Development, and Back Office.
- The Longmont area's diverse workforce, relative affordability, and low Colorado tax rates make it a highly attractive location for Back Office operations, such as procurement and billing for larger organizations both within the region and across the nation.
- Planned upgrades at Vance Brand Municipal Airport will make it a more attractive location for corporate jet traffic. The nearby Denver International Airport is a hub of national and international flights.

| Advance Longmont Target Industries – Professional Services & IT | | |
|--|---|--|
|  | Industry Definition | |
| | <p>Professional Services & IT is characterized by knowledge-intensive, white-collar occupations that require education, advanced skills, and creativity, including architecture, engineering, accounting, management, software, research & development, and business support.</p> | |
| Longmont Competitive Strengths | Key Figures | Niche Sector Targets |
| <ul style="list-style-type: none"> Well-educated population with strong workforce supply from CU, CSU, and FRCC Existing base of Professional Services & IT firms Diverse economy and workforce Fiber optic broadband network and affordable utilities High quality of life and relative affordability Major concentration of existing Research & Development operations Innovative community with high patent production Proximity to Denver International Airport Vance Brand Municipal Airport Competitive business climate and regulations | <ul style="list-style-type: none"> 4,200 jobs in Longmont 1.7 LQ 4% growth from 2008-2013 \$103,600 average salary | <ul style="list-style-type: none"> Engineering & Design Services Back Office Research & Development Software |
|  | | |